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Conference Abstract

Cultural Heritage Disaster Risk Management Network Promotion Council & Natural History Museums: Pre- & Post-Disaster Response in Japan

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Abstract

1. Time Line

In 2011: The Agency for Cultural Affairs launched the "Committee for Salvaging Cultural Properties Affected by the 2011 Earthquake off the Pacific Coast of Tohoku and Related Disasters," which included the National Museum of Nature and Science and the National Council of Science Museums as members, but not a scientist team. The committee's activities started focusing on cultural heritage under the "Law for the Protection of Cultural Properties." This Japanese law covers a limited range of cultural heritage, such as artworks and historic properties, but not scientific collections. Conservation of museum collections is clearly stated in the "Museum Act," but there is no emergency response system. NMNS could not react with agility to the disaster at this time.

The West Japan Natural History Museum Network (WJNHMN), which is located in Osaka, far from the disaster area, started to seek its own rescue and salvage activities with the Iwate Prefectural Museum, which is located inland of Iwate prefecture and a safe location from tsunamis (Tokyo and Tsukuba also had some damage, especially early on). Iwate Prefectural Museum was also slightly damaged, and suffered from an electric outage and gas shortage. The museum served as a regional rescue center for damaged museums in coastal areas. Salvage activities were started mainly based on personal networks and

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voluntary activities by many museum workers throughout Japan. Soon after, WJNHMN began collaborating with the Committee, exchanging both information and techniques for stabilisation and restoration of natural history materials.

In 2014: After the major stabilization process had ceased, the Committee was reformed as the "Cultural Heritage Disaster Risk Management Network Promotion Council" and their membership expanded to encompass the conservation of a wider range of cultural and natural heritage properties from disasters. WJNHMN and The Japanese Council of University Museums joined as formal members. The Council is made up of professional organizations in various fields and cooperates in gathering information and providing joint rescue activities.

In 2016: The earthquake in Kumamoto prefecture damaged the Kumamoto City Museum (2017), Aso Volcano Museum and several other small museums. At first, local government lacked information about natural history collections, but it turned out that most were safe.

In 2020: The Council developed "Disaster Response Guidelines" to expand conservation targets, to aid local government officials. In the guideline, natural history collections are clearly defined as their conservation target. The Cultural Heritage Disaster Risk Management Center, Japan was established to serve as the Council's headquarters.

In 2021: During the flooding of the Kuma-River in Hitoyoshi, Kumamoto, 32,000 herbarium sheets were soaked by muddy water at the Hitoyoshi Castle History Museum. At the direction of the Council, the National Museum of Nature and Science, and WJNHMN coordinated and distributed the specimens to 35 institutions across the country within a month (Ebihara and Sakuma 2024).

In 2024: Initially after the earthquake of Noto-Peninsula, there was no news of damage to natural history collections. However, six months later, one of the local museums had to move its collection to another place.

2. Current challenges and targets

The Council improved the disaster response step by step. We have identified some challenges for further improvement of disaster preparedness of Japanese natural history collections and museums.

1. **Preparation for initial activities.** Some academic societies had discussed the guidelines for emergency financial support to react to disasters. In the case of rescue works of 2011, there were no supporting funds for natural history, which relied entirely on the voluntary initiatives of institutes, museums and individuals. We obtained support from private funds after the flooding of 2021. With the activities of the reformed Council, information about the damaged museums and properties were communicated soon after the disasters, among those in the organization, which was a much improved response compared to the 2011 earthquake (Sakuma 2017). Materials reserved for specimen rescue (e.g.,

cardboard boxes, freezer bags, oxygen absorber, ethanol) and advanced funding, are key to a more rapid initial response and for better conservation.

2. **Storage deficit.** Many specimens are stored in unstable conditions in many museums, with poor documentation and inventory, which makes it difficult to salvage and rescue items once disaster happens.
3. **Lack of understanding of the value of natural history collections** by local governments, administrative personnel, and local cultural property personnel delays time-sensitive responses to disasters in both in the damaged area, as well as in the area where rescue and salvage teams are dispatched. This understanding needs to be developed before the disaster, at both the administrative level and by citizens.
4. **Support for the restoration process.** After a disaster, there are some issues related to the re-building of museums and resumption of their activities, which are difficult, even though specimens are undamaged. This is especially difficult if there is no museum curator to support these activities. In the case of the Rikuzentakata City Museum, many supporters and museums provided assistance during its reopening process.

Keywords

disaster preparedness, museum network, multi-disciplinary cooperation

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Conflicts of interest

The authors have declared that no competing interests exist.

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